

JANET K. JANSSON

Professor and Senior Staff Scientist

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Professional preparation

New Mexico State University	B.S. Biology and Soil Science	1980
Colorado State University	M.S. Soil Microbiology	1983
Michigan State University	Ph.D. Microbial Ecology	1988
Stockholm University	Postdoc. Biochemistry	1991

Appointments

2007-present	Senior Staff Scientist, Earth Sciences Division, Lawrence Berkeley National Lab., CA 20% appointment at the Joint Genome Institute (JGI), LBNL 20% appointment at the Joint Bioenergy Institute (JBEI), LBNL
2003-present	Professor (Chair) of Environmental Microbiology, SLU, Uppsala, Sweden
2006-2007	Vice Dean (25%), Swedish University of Agricultural Sciences (SLU), Uppsala
2000-2002	Professor of Microbiology, Section for Natural Sciences, Södertörn University, Sweden
1998-1999	Associate Professor, Section for Natural Sciences, Södertörn University College
1996-1997	Assistant Professor, Department of Biochemistry, Stockholm University, Sweden

Conference chair positions.

- Conference organizer for the 10th Symposium on Bacterial Genetics and Ecology (BAGECO-10), with 320 participants. Uppsala, Sweden. 2009
- Vice-Chair of the Gordon Conference on Applied and Environmental Microbiology. Mount Holyoke, MA, 2011 (elected Chair for 2013)
- Elected Co-Chair of the ASM Beneficial Host-Microbe conference, San Francisco, CA, 2012.
- Session chair. Bacterial Genetics and Ecology. Corfu, Greece. May 29-June 2, 2011.
- *Session Chair. Soil Metagenomics.* Argonne International Workshop on Soil Metagenomics. Argonne, IL. October 4-7, 2010.
- Session chair. Bacterial Genetics and Ecology. Corfu, Greece. May 29-June 2, 2011.

Advisory positions

- LBNL- Earth Sciences Division Professional Staff Committee (from 2010)
- LBNL Professional staff committee (from 2011)
- LBNL Awards committee (from 2011)
- DOE-BER evaluation panel for Young Investigator Awards (2010)
- Nominated to participate in LBNL Emerging Leader Program (2011)
- Advisory panel in planning of DOE Next Generation Ecosystem Experiment (NGEE) in the arctic, including workshop in Alaska, October 2011.
- Advisory panel in ICiS Metagenomics workshop. Snowbird, Utah, July 19-23, 2011
- Advisory panel in NIH-HMP Brainstorming panel. Bethesda, MD. April 21, 2011.
- Review panel for Argonne National Laboratory. September, 2011

Other Experience and Commissions of trust

- Vice Dean, Faculty of Natural Resources and Agricultural Sciences, SLU, Sweden (2007)
- Member of the Swedish Royal Academy of Sciences, National Committee for Biology (2006-2007)
- Swedish representative for the International Union of Biological Sciences (2006-2007)

- Frequent invited evaluator and reviewer of research projects for the European Commission (2003-2007)
- Coordinator of EU project: “MAREP, Marker/reporter genes in Microbial Ecology” with 26 partners from 11 different countries (1997-1999)
- Coordinator of the Swedish Network of Excellence: Uppsala Microbiomics Center (2006-2007)
- Member of the Swedish Gene Technology Advisory Board (2000-2006)
- Conference organizer for the 10th Symposium on Bacterial Genetics and Ecology (BAGECO-10), with 320 participants. Uppsala, Sweden. 2009

Current research support

- US Department of Energy, BER: “*Meta-“omics” analysis of microbial carbon cycling responses to altered rainfall inputs in native prairie soils*”. 2010-2012. Jansson PI, in collaboration with Ari Jumpponen & Charles Rice (KSU), Susannah Tringe (JGI) Robert Hettich & Nathan VerBerkmoes (ORNL). Project coordinator: David Myrold (OSU), Jansson budget: \$200,000/yr
- NSF Research Coordination Network, *TerraGenome-The Soil Metagenome Network*. 2011-2015. Jansson, PI & liason with Earth Microbiome Project. Project coordinator: David Myrold (OSU). \$500,000 total.
- *Earth Microbiome Project* (funded through Illumina, Eppendorf, MoBio, Argonne National Laboratory and University of Colorado, Boulder): Jansson, Steering committee member and PI in charge of soil projects for EMP, including sample collection, storage and processing.
- US Department of Energy, Strategic LDRD: “*Fundamental research on biological carbon capture and soil carbon stabilization*”. 2010-2012. Jansson PI, Project coordinator: Margaret Torn (LBNL). \$250,000/yr
- British Petroleum (BP) Energy Biosciences Institute: *Microbially Enhanced Hydrocarbon Recovery (MEHR)- Systems Biology Program*. 2009 – 2019. Jansson Co-PI in charge of “omics” analyses: Project coordinators: Terry Hazen and John Coates. LBNL budget is \$1,600,000/Yr
- BP- Gulf oil spill project: *Use of “omics” to assess the impact of the Gulf oil spill on microbial community composition and function*. 2010-2012. LBNL budget is approx. Jansson, Co-PI and coordinator of “omics” analyses. Project coordinator: Terry Hazen, LBNL. Approx.. \$1,000,000/yr.
- US National Institute of Health: *Metagenomic Analysis of the Structure and Function of the Human Gut Microbiota in Crohn's Disease*. 2009-2011. Role, PI. Project coordinator: Claire Fraser-Liggett (Univ. of Maryland, USA). Jansson budget: \$210,000/yr.
- General Mills: Impact of dietary carbohydrate on the gut microbiota composition and function. 2011. Jansson PI; Co-PI, Ronald Kraus (Children’s Hospital, Oakland). \$275,000.
- DOE/ Joint Genome Institute (JGI) Community Sequencing Project: *Metagenomics of permafrost soil – implications for climate change*. 2010. Sequencing costs covered by JGI. Postdoc costs funded by visiting postdoc in Jansson lab (Finnish Academy of Science). Jansson, (Co-PI); PI, Mark Waldrop, USGS.
- DOE/Joint Genome Institute (JGI) Community Sequencing Project: *Microbial Community structure and metabolic potential of chronically polluted marine sediments from cold regions of the northern and southern hemispheres*. Sequencing costs covered by JGI. Jansson (Co-PI); PI, Hebe M. Dionisi, CENPAT-CONICET, Argentina.
- Joint Bioenergy Institute (JBEI) *Microbial Communities*. Jansson PI. 20% salary & Postdoc funded through JBEI. (approx. \$250,000/yr).

Assignments as member of editorial boards for scientific journals (from 1999)

- Co-Editor-in-Chief of The ISME Journal (from 2009)
- Editor of FEMS Microbiology Ecology (1996-2004)
- Editorial Board of Applied and Environmental Microbiology (from 2005)
- Editorial Board of FEMS Microbiology Ecology (from 2006)
- Editorial Board of Environmental Microbiology (from 2006)

- Editorial Board of International Society of Microbial Ecology Journal (from 2007)
- Editorial Board of Current Opinion in Biotechnology (from 2011)

Current supervision of postdoctoral fellows

- Neslihan Tas [2011-2012]
- Maude David [2010-2012]
- Regina Lamendella [2009-2011]
- Olivia Mason [2009-2012]
- Jenni Hultman [2010-2012]
- Jacob Baelum [2010-2012]
- Emmanuel Prestat [2011-2012]
- Lasse Bergmark [2011]
- Nicholas Ballor [2011-2012]

Additional mentoring activities

- Rachel Mackelprang (Co-supervisor/ Eddy Rubin Main supervisor) [2009-2011]
- Kent Li (UC Berkeley undergrad)
- Katie Amberg-Johnson (UC Berkeley undergrad)
- Shi Wang (visiting Master's student, The Netherlands)
- Eric Bottos (visiting postdoc, New Zealand)

Recent invited speaker presentations

- *Permafrost metagenomics*. 3rd Annual Argonne Soil Metagenomics Workshop. October 5-7, 2011. Chicago IL.
- *Metagenome sequencing insights – From soil to oil*. First International Earth Microbiome Program Symposium. Schenzhen, China. June 12-16, 2011.
- *Multi-omics investigations of the role of the gut microbiome in Crohn's disease*. Iowa State University seminar series. Ames, Iowa. April 21, 2011.
- *The data bonanza in the age of soil metagenomics and metaproteomics*. Keystone Symposium on Microbial Communities as Drivers of Ecosystem Complexity, March 25-30, 2011. Beaver Run Resort, Breckenridge Colorado.
- *Overcoming hurdles towards applications of metagenomics and metaproteomics in soil*. International Symposium on Soil Metagenomics. Braunschweig, Germany. December 8-10, 2010.
- *Illumina-tion of soil microbial community responses to climate change using metagenomics*. Microbial Ecosystems Lecture series. University of Vienna, Austria. December 6-8, 2010.
- *Soil Proteomics*. Soil Science Society of America. Long Beach, CA. October 31-November 3, 2010.
- *Metaproteomics and metabolomics reveal potential biomarkers of Crohn's diseases in the human gut microbiome*. ASM Beneficial Microbes. Miami, FL. October 25-29, 2010.
- *Exploration of the human microbiome using "omics" approaches*. MPGI Annual Fall Symposia. University of Minnesota. Sept. 1-3, 2010.
- *Permafrost soil metagenomics reveals microbial community dynamics and carbon cycling processes during thaw*. 13th International Symposium on Microbial Ecology (ISME13). Seattle, WA. August 22-25, 2010.
- *Soil metagenome responses to climate change*. 110th General Meeting of the American Society of Microbiology. San Diego, CA. May 23-27, 2010.
- *The human gut microbiota in health and disease*. 110th General Meeting of the American Society of Microbiology. San Diego, CA. May 23-27, 2010.
- *Studies of identical twins with inflammatory bowel diseases*. International Human Metagenome Conference. Shenzhen, China, March 1-3, 2010
- *Use of omics to explore the human microbiome*. MikroBioKosmos. Athens, Greece. Dec. 11-13, 2009.

- *Ongoing soil metagenomics projects*. Argonne Soil Metagenomics Workshop. Argonne, Illinois. October 25-27, 2009.
- *Studying the human gut microbiome (in health and disease) using a variety of omics approaches*. ProkaGENOMICS 2009. 4th European Conference on Prokaryotic Genomics. Gottingen, Germany. 4-7 October, 2009.

Publication list

- 1) Mackelprang, R., M.P. Waldrop, K.M. DeAngelis, K.L. Chavarria, S.J. Blazewicz, E.M. Rubin and J.K. Jansson. Metagenomic analysis of microbial community response to thaw (*in final revision, Nature*).
- 2) Jansson, J.K. 2011. Towards "Tera-Terra": Terabase sequencing of terrestrial metagenomes. *Microbe*. 6:309-315.
- 3) Jansson, J.K., J.D. Neufeld, M.A. Moran and J.A. Gilbert. 2011. Omics for understanding microbial functional dynamics. *Environmental Microbiology (advance online: DOI: 10.1111/j.1462-2920.2011.02518x)*.
- 4) Lu, Z., Y. Deng, J. D. Van Nostrand, Z. He, J. Voordeckers, A. Zhou, Y-J. Lee, O. Mason, E. Dubinsky, K. Chavarria, L. Tom, J. Fortney, R. Lamendella, J.K. Jansson, P.D'haeselleer, T.C. Hazen and J. Zhou. 2011. Microbial gene functions enriched in the Deepwater Horizon deep-sea oil plume. *The ISME Journal (advance online: doi:10.1038/ismej.2011.91)*
- 5) Yilmaz, P., R. Kottmann, D. Field, R. Knight, J.R. Cole, L. Amaral-Zettler, J.A. Gilbert, I. Karsch-Mizrachi, A. Johnston, G. Cochrane, R. Vaughan, C. Hunter, J. Park, N. Morrison, P. Rocca-Serra, P. Ster, M. Arumugam, M. Bailey, L. Baumgartner, B.W. Birren, M.J. Blaser, V. Bonazzi, T. Booth, P. Bork, F.D. Bushman, P. L. Buttigieg, P.S.G. Chain, E. Charlson, E.K Costello, H. Huot-Creasy, P. Dawyndt, T. DeSantis, N. Fierer, J.A. Fuhrman, F.E. Gallery, D. Gevers, R.A. Gibbs, I. San Gil, A. Gonzalez, J.I. Gordon, R. Guralnick, W. Hankeln, S. Highlander, P. Hugenholtz, J. Jansson, et al., 2011. Minimum information about a marker gene sequence (MIMARKS) and minimum information about any (x) sequence (MIXS) specifications. *Nature Biotechnology*. 29:415-420.
- 6) Jansson, J.K. and J.K. Fredrickson. 2010. Stewards of a changing planet: commentaries from ISME13 plenary lecturers. *The ISME Journal*. 4:1079-1080.
- 7) Hazen, T.C., E.A. Dubinsky, T.Z. DeSantis, G.L. Andersen, Y.M. Piceno, N. Singh, J.K. Jansson, et al. (2010) Deep-sea oil plume enriches indigenous oil-degrading bacteria. *Science*. 330:204-208.
- 8) Chourey, K., J.K. Jansson, N. VerBerkmoes, M. Shah, K. Chavarria, L. Tom, E. Brodie and R. Hettich. (2010) A direct cellular lysis/protein extraction protocol for soil metaproteomics. *Journal of Proteome Research*. 9:6615-6622.
- 9) Gilbert, J.A., F. Meyer, J. Jansson, J. Gordon, N. Pace, J. Tiedje, R. Ley, N. Fierer, D. Field, N. Krypides, F.-O. Glockner, H.P. Klenk, K.E. Wommack, E. Glass, K. Docherty, R. Gallery, R. Stevens and R. Knight. 2010. The Earth Microbiome Project: Meeting report of the 1st EMP meeting on sample selection and acquisition. *Standards in Genomic Science*. 3:3.
- 10) Jernberg, C., S. Lofmark, C. Edlund and J.K. Jansson. 2010. Long-term impacts of antibiotic exposure on the human intestinal microbiota. *Microbiology*. 156:3216-3223.
- 11) Willing, B., J. Dicksved, J. Halfvarson, A. Andersson, M. Lucio, Z. Zeng, G. Jarnerot, C. Tysk, J.K. Jansson, L. Engstrand. 2010. A pyrosequencing study in twins shows that GI microbial profiles vary with inflammatory bowel disease phenotypes. *Gastroenterology*. 139:1844-1854.
- 12) Jakobsson, H., C. Jernberg, A.F. Andersson, M.Sjöland-Karlsson, J.K. Jansson and L. Engstrand (2010) Short-term antibiotic treatment has differing long-term impacts on the human throat and gut microbiome. *PLoS One*. 5(3):1-12(e9836).
- 13) Wessen, E., K. Nyberg, J.K. Jansson and S. Hallin. 2010. Responses of bacterial and archaeal ammonia oxidizers to soil organic matter under long-term management. *Applied Soil Ecology*. 45:193-200.

- 14) Khoruts, A., J. Dicksved, J.K. Jansson and M. J. Sadowsky. 2010. Changes in the composition of the human fecal microbiome following bacteriotherapy for recurrent *Clostridium difficile*-associated diarrhea. *Journal of Clinical Gastroenterology*. 44:353-360.
- 15) Hjort, K., M. Bergström, M. Adesina, J.K. Jansson, K. Smalla and S. Sjöling. 2010. Chitinase genes revealed and compared in bacterial isolates, DNA extracts and a metagenomic library from a phytopathogen suppressive soil. *FEMS Microbiology Ecology* 71:197-207. LBNL-2732E.
- 16) Vogel, T.M., P.R. Hirsch, P. Simonet, J.K. Jansson, J.M. Tiedje, J.D. van Elsas, R. Nalin, L. Philippot and M.J. Bailey. 2009. Advantages of the metagenomic approach for soil exploration: reply from Vogel et al. *Nature Reviews Microbiology*. 7:756-757.
- 17) Jansson, J. K., B. Willing, M. Lucio, A. Fekete, J. Dicksved, J. Halfvarson, C. Tysk, and P. Schmitt-Kopplin. 2009. Metabolomics reveals metabolic biomarkers of Crohn's disease. LBNL-2153. *PLoS One*. 4 (7):1-10 (e6386). LBNL-2153
- 18) Zhigang, Wu, B. Willing, J. Bjerketorp, J.K. Jansson and K. Hjort. 2009. Soft inertial microfluidics for high throughput separation of bacteria from human blood cells. *Lab on a Chip*. 9:1193-1199. LBNL-1539E.
- 19) Vogel, T.M., P. Simonet, J.K. Jansson, P.R. Hirsch, J.M. Tiedje, J.D. van Elsas, M. J. Bailey, R. Nalin L. Philippot. 2009. TerraGenome: a consortium for the sequencing of a soil metagenome. *Nature Reviews Microbiology*. 7:1
- 20) Unell, M., P. E. Abraham, M. Shah, B. Zhang, C. Ruckert, N.C. VerBerkmoes and J. Jansson. 2009. Impact of phenolic substrate and growth temperature on the *Arthrobacter* proteome. *J. Proteome Res*. 8:1953-1964. LBNL-1565E.
- 21) Willing, B., J. Halfvarson, J. Dicksved, M. Rosenquist, G. Jarnerot, L. Engstrand, C. Tysk and J.K. Jansson. 2009. Twin studies reveal specific imbalances in the mucosa-associated microbiota of patients with ileal Crohn's disease. *Inflammatory Bowel Diseases*. 15:653-660. LBNL-1222E.
- 22) Dicksved, J., M. Lindberg, M. Rosenquist, H. Enroth, J.K. Jansson and L. Engstrand. 2009. Molecular Characterization of the Stomach Microbiota in Patients With Gastric Cancer and Controls. *Journal of Medical Microbiology*. 58:509-516. LBNL-1632E
- 23) VerBerkmoes, N.C., A.L. Russell, M. Shah, A. Godzik, M. Rosenquist, J. Halfvarson, M.G. Lefsrud, J. Apajalahti, C. Tysk, R.L.Hettich and J.K. Jansson. 2009. Shotgun metaproteomics of the human distal gut microbiota. *The ISME Journal*. 3:179-189. LBNL-1134E.
- 24) Jäderlund, L. M. Hellman, I. Sundh, M. Bailey and J.K. Jansson. 2008. Use of a novel non-antibiotic triple marker gene cassette to monitor high survival of *Pseudomonas fluorescens* SBW25 on winter wheat in the field. *FEMS Microbiology Ecology*. 63:156-168.
- 25) Unell, M., K. Nordin, C. Jernberg, J. Stenström and J.K. Jansson. 2008. Degradation of mixtures of phenolic compounds by *Arthrobacter chlorophenolicus* A6. *Biodegradation* 19:495-505.
- 26) Bjerketorp, J. A.N.T. Chiang, K. Hjort, M. Rosenquist, W-T. Liu and J.K. Jansson. 2008. Rapid lab-on-a-chip profiling of human gut bacteria. *Journal of Microbiological Methods*. 72:82-90.
- 27) Jäderlund, L., V. Arthurson, U. Granhall and J.K. Jansson. 2008. Specific interactions between arbuscular mycorrhizal fungi and plant growth/promoting bacteria as revealed by different combinations. *FEMS Microbiology Letters*. 287:174-180. LBNL-920E.
- 28) Edlund, A., F. Hårdeman, J.K. Jansson and S. Sjöling. 2008. Active bacterial community structure along vertical redox gradients in Baltic Sea sediment. *Environmental Microbiology* 10:2051-2063. LBNL-711E.
- 29) Edlund, A. and J.K. Jansson. 2008. Use of bromodeoxyuridine immunocapture to identify psychrotolerant phenanthrene-degrading bacteria in phenanthrene-enriched polluted Baltic Sea sediments. *FEMS Microbiology Ecology*. 65:513-525. LBNL-1538E
- 30) Van Elsas, J.D., J. Jansson, S. Sjöling, M. Bailey, R. Nalin, T. Vogel, R. Costa and L.V. Overbeek. 2008. The soil metagenome—a recalcitrant, yet explorable goldmine for gene hunters. *Trends in Biotech*. 26:591-691.

- 31) Dicksved, J., J. Halfvarson, M. Rosenquist, G. Järnerot, C. Tysk, J. Apajalahti, L. Engstrand and J.K. Jansson. 2008. Molecular analysis of the gut microbiota of identical twins with Crohn's disease. *The ISME Journal* 2:716-727. LBNL-197E.
- 32) Jernberg, C., S. Löfmark, C. Edlund and J.K. Jansson. 2007. Long-term ecological impacts of antibiotic administration on the human intestinal microbiota. *The ISME Journal* 1:56-66.
- 33) Steger, K., Å.M. Sjögren, Å. Jarvis, J.K. Jansson and I. Sundh. 2007. Development of compost maturity and Actinobacteria populations during full-scale composting of organic household waste. *Journal of Applied Microbiology* 103:487-498.
- 34) Hjort, K., A. Lembke, A. Speksnijder, K. Smalla and J.K. Jansson. 2007. Community structure of actively growing bacterial populations in plant pathogen suppressive soil. *Microbial Ecology* 53:399-413.
- 35) Dicksved, J., H. Flöistrup, A. Bergström, M. Rosenquist, G. Pershagen, A. Scheynius, S. Roos, J.S. Alm, L. Engstrand, C. Braun-Fahrländer, E. von Mutius and J.K. Jansson. 2007. Molecular fingerprinting of the fecal microbiota of children raised according to different lifestyles. *Applied and Environmental Microbiology* 73:2284-2289.
- 36) Unell, M., N. Kabelitz, J. Jansson and H. Heipieper. 2007. Adaptation of the psychrotroph *Arthrobacter chlorophenolicus* A6 to growth temperature and the presence of phenols by changes in the anteiso/iso ration of branched fatty acids. *FEMS Microbiology Letters* 266:138-143.
- 37) Toljander, J., V. Artursson, L.R. Paul, J.K. Jansson and R.D. Finlay. 2006. Attachment of different soil bacteria to arbuscular mycorrhizal fungal extraradical hyphae is determined by hyphal vitality and fungal species. *FEMS Microbiology Letters* 254:34-40.
- 38) Lofmark, S., C. Jernberg, J. Jansson and C. Edlund. 2006. Clindamycin induced enrichment and long term persistence of resistant *Bacteroides* spp. and resistance genes. *Journal of Antimicrobial Chemotherapy* 58:1160-1167.
- 39) Edlund, A., T. Soule, S. Sjöling and J.K. Jansson. 2006. Microbial community structure in Baltic Sea sediment along a pollution gradient. *Environmental Microbiology* 8:223-232.
- 40) Edlund, A. and J.K. Jansson. 2006. Changes in active bacterial communities before and after dredging of highly polluted Baltic Sea sediments. *Applied and Environmental Microbiology* 72:6800-6807.
- 41) Bjerketorp, J., S. Håkansson, S. Belkin and J.K. Jansson. 2006. Advances in preservation methods: how to keep microbial biosensors alive and active? *Current Opinion in Biotechnology* 17:43-49.
- 42) Artursson, V. R. Finlay and J.K. Jansson. 2006. Interactions between arbuscular mycorrhizal fungi and bacteria and their potential for stimulating plant growth. *Environmental Microbiology* 8:1-10.
- 43) Nordin, K., M. Unell and J.K. Jansson. 2005. A novel 4-chlorophenol degradation gene cluster and degradation route via hydroxyquinol in *Arthrobacter chlorophenolicus* A6. *Applied and Environmental Microbiology* 71:6538-6544.
- 44) Von der Weid, I., V. Artursson, L. Seldin and J.K. Jansson. 2005. Antifungal and root surface colonization properties of GFP-tagged *Paenibacillus bransilensis* PB177. *World Journal of Microbiology and Biotechnology* 12:1589-1595.
- 45) Jernberg, C., Å. Sullivan, C. Edlund and J.K. Jansson. 2005. Monitoring antibiotic induced alterations in the human intestinal microflora and detection of probiotic strains by the use of T-RFLP. *Applied and Environmental Microbiology* 71:501-506.
- 46) Artursson, V., R.D. Finlay and J.K. Jansson. 2005. Combined bromodeoxyuridine immunocapture and terminal restriction fragment length polymorphism analysis highlights differences in the active soil bacterial metagenome due to *Glomus mosseae* inoculation of plant species. *Environmental Microbiology* 7:1952-1956.
- 47) Lu, Z., R. Tombolini, S. Woo, S. Zeilinger, M. Lorito and J.K. Jansson. 2004. In vivo study of Trichoderma-pathogen-plant interactions with constitutive and inducible GFP reporter systems. *Applied and Environmental Microbiology* 70:3073-3081.

- 48) Maraha, N., A. Backman and J.K. Jansson. 2004. Monitoring physiological status of GFP-tagged *Pseudomonas fluorescens* SBW25 under different nutrient conditions and in soil by flow cytometry. *FEMS Microbiology Ecology* 51:123-132.
- 49) Backman, A., N. Maraha and J.K. Jansson. 2004. Impact of temperature on the physiological status of a potential bioremediation inoculant, *Arthrobacter chlorophenolicus* A6. *Applied and Environmental Microbiology*. 70:2952-2958.
- 50) Backman, A. and J.K. Jansson. 2004. Degradation of 4-chlorophenol at low temperature and during extreme temperature fluctuations by *Arthrobacter chlorophenolicus* A6. *Microbial Ecology*. 48:246-253.
- 51) Jansson, J.K. 2003. Marker and reporter genes: illuminating tools for environmental microbiologists. *Current Opinion in Microbiology*. 6:310-316.
- 52) Artursson, V. and J.K. Jansson. 2003. Use of bromodeoxyuridine immunocapture to identify active bacteria associated with arbuscular mycorrhizal hyphae. *Applied and Environmental Microbiology*. 69:6208-6215. Editors choice: *Science*. 2003. 302:1117
- 53) Jernberg, C. and J.K. Jansson. 2002. Impact of genetically modified *Arthrobacter chlorophenolicus* inoculum on soil microbial community structure during bioremediation of 4-chlorophenol contaminated soil. *FEMS Microbiology Ecology*. 42:387-397.
- 54) Unge, A. and J.K. Jansson. 2001. Monitoring population size, activity and distribution of *gfp/luxAB*-tagged *Pseudomonas fluorescens* SBW25 during colonisation of wheat. *Microbial Ecology*. 41: 290-300.
- 55) Elväng, A. M., C. Jernberg, K. Westerberg and J.K. Jansson. 2001. Monitoring bioremediation of 4-chlorophenol-contaminated soil using *gfp* or *luc*-tagged *Arthrobacter chlorophenolicus* A6. *Environmental Microbiology*. 3:1-12.
- 56) Räsänen, L.A., A.M. Elväng, J.K. Jansson and K. Lindström. 2001. Effect of heat stress on the cell activity and cell morphology of tropical rhizobia *Sinorhizobium arboris* cells. *FEMS Microbiology Ecology* 34:267-278.
- 57) Jansson, J.K., K. Björklof, A. Möller and K. Jörgensen. 2000. Biomarkers for monitoring efficacy of bioremediation by inoculants. *Environmental Pollution*. 107:217-223.
- 58) Lowder, M., A. Unge, N. Maraha, J.K. Jansson, J. Swiggett and J.D. Oliver. 2000. Effect of starvation and the viable-but nonculturable state on green fluorescent protein (GFP) fluorescence in GFP-tagged *Pseudomonas fluorescens* A506. *Applied and Environmental Microbiology*. 66:3160-3165
- 59) Westerberg, K., A. M. Elväng, E. Stackebrandt and J.K. Jansson. 2000. *Arthrobacter chlorophenolicus* sp. nov., a new species capable of degrading high concentrations of 4-chlorophenol. *International Journal of Systematic and Evolutionary Microbiology*. 50:2083-2092.
- 60) Jansson, J.K., S. Molin and M. Romantschuk. 2000. Test methods for monitoring genetically modified microorganisms (GMMs) in nature. Nordtest technical report 455, 23 p. NT Project number: 1473-99.
- 61) Tombolini, R., D.J. Van der Gaag, B. Gerhardson and J.K. Jansson. 1999. Colonization pattern and in situ visualization of the biocontrol strain, *Pseudomonas chlororaphis* MA342 during early stages of barley seed germination. *Applied and Environmental Microbiology*. 65:3674-3680.
- 62) Unge, A., R. Tombolini, L. Molbak and J.K. Jansson. 1999. Simultaneous monitoring of bacterial number and activity in soil using a dual *gfp/lux* marker system. *Applied and Environmental Microbiology* 65:813-821.
- 63) Tombolini, R. and J.K. Jansson. 1998. Monitoring of GFP tagged bacterial cells. *Methods in Molecular Biology*. 102:285-298.
- 64) Moller A. and J.K. Jansson. 1998. Detection of firefly luciferase tagged bacteria in environmental samples. *Methods in Molecular Biology*. 102:269-283.

- 65) Moller, A., and J.K. Jansson. 1997. Quantification of genetically-tagged cyanobacteria in Baltic Sea sediment by competitive PCR. *BioTechniques*. 22:512-518.
- 66) Tombolini, R., A. Unge, M.E. Davey, F.J. de Bruijn and J.K., Jansson. 1997. Flow cytometric and microscopic analyses of GFP-tagged *Pseudomonas fluorescens*. *FEMS Microbiology Ecology* 22:117-28.
- 67) Jansson, J.K. and J. Prosser. 1997. Quantification of the presence and activity of specific microorganisms in nature. *Molecular Biotechnology* 7:103-120.
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Invention Disclosure

Metabolite signatures of Crohn's disease